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U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/573,718	Tetsuo Toraya	08917-116US1 F 04-047-PCT

INTERNATIONAL APPLICATION NO.

PCT/JP04/14213

I.A. FILING DATE	PRIORITY DATE
09/29/2004	09/29/2003

69713
 OCCHIUTI ROHLICEK & TSAO, LLP
 10 FAWCETT STREET
 CAMBRIDGE, MA 02138

RECEIVED
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BY:

CONFIRMATION NO. 6845

371 FORMALITIES LETTER



OC000000024118809

Date Mailed: 05/30/2007

NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495)

- Priority Document
- Copy of the International Application filed on 03/27/2006
- English Translation of the IA filed on 03/27/2006
- Copy of the International Search Report filed on 03/27/2006
- Preliminary Amendments filed on 03/27/2006
- Information Disclosure Statements filed on 03/27/2006
- Biochemical Sequence Diskette filed on 03/27/2006
- Oath or Declaration filed on 11/28/2006
- Biochemical Sequence Listing filed on 01/09/2007
- U.S. Basic National Fees filed on 03/27/2006
- Priority Documents filed on 03/27/2006

Applicant's response filed 01/09/2007 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 09/28/2006 have not been completed.

- The paper or compact disc copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e). Applicant must provide a substitute paper or compact disc copy of the "Sequence Listing", **as well as an amendment specifically directing its entry into the application** OR a substitute computer readable form (CRF) copy of the "Sequence Listing". These two items must be the same. Applicant must also provide a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000).

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR

1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- **For Rules Interpretation, call (571) 272-0951**
- **For Patent Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.**
- **Send e-mail correspondence for Patent Software Program Help @ ebc@uspto.gov**

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://portal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

ANITA D JOHNSON

Telephone: (703) 308-9140 EXT 226

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/573,718	PCT/JP04/14213	08917-116US1 F 04-047-PCT

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/573,718A
Source: IFWP
Date Processed by STIC: 11/16/07

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER:

10/573,718A

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.

- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped
 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000

- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence. (see item 11 below)

- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules

- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



IFWP

RAW SEQUENCE LISTING

DATE: 01/18/2007

PATENT APPLICATION: US/10/573,718A

TIME: 17:05:19

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Does Not Comply
Corrected Diskette Needed

1 <110> APPLICANT: Toraya, Tetsuo
 2 Tobimatsu, Takamasa
 3 Yamanishi, Mamoru
 4 Mori, Kouichi
 5 Kajiuura, Hideki
 6 Yamada, Seiki
 7 Yuzuki, Michio
 8 Azuma, Muneaki
 9 Hara, Tetsuya
 10 Yasuda, Shinzo
 11 <120> TITLE OF INVENTION: Method for Production of 3-hydroxypropionaldehyde
 12 <130> FILE REFERENCE: 08917-116US1
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 14 <141> CURRENT FILING DATE: 2006-03-27
 15 <150> PRIOR APPLICATION NUMBER: PCT/JP2004/014213
 16 <151> PRIOR FILING DATE: 2004-09-29
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 18 <151> PRIOR FILING DATE: 2003-09-29
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see pp 114

invalid response-see item 10 on Enon
summary
sheet

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PATENT APPLICATION: US/10/573,718A

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RAW SEQUENCE LISTING

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PATENT APPLICATION: US/10/573,718A

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136	cctctccccg	cgcgttgccc	gattcattaa	tgcagctggc	acgacagggt	tcccgaactg	6600
137	aaagcgggca	gtgagcgcaa	cgcaattaat	gtgagttagc	tactcatta	ggcaccacag	6660
138	gctttacact	ttatgcttcc	ggctcgatg	ttgtgtggaa	ttgtgagcgg	ataacaattt	6720
139	cacacaggaa	acagctatga	ccatgattac	ggattcactg	gccgtcgttt	tacaacgtcg	6780
140	tgactgggaa	aaccctggcg	ttacccaact	taatcgctt	gcagcacatc	cccccttcgc	6840
141	cagctggcgt	aatagcgaag	aggcccgcac	cgatcgccct	tcccaacagt	tgcgcagcct	6900
142	gaatggcgaa	tggcgctttg	cctgggtttc	ggcaccagaa	gcggtgccgg	aaagctggct	6960

RAW SEQUENCE LISTING

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Output Set: N:\CRF4\01182007\J573718A.raw

143	ggagtgcgat	cttccctgagg	ccgatactgt	cgctcgtcccc	tcaaactggc	agatgcacgg	7020
144	ttacgatgcg	cccatctaca	ccaacgtaac	ctatcccatt	acgggtcaatc	cgccgtttgt	7080
145	ttccacggag	aatccgacgg	gttggtactc	gctcacattt	aatgttgatg	aaagctggct	7140
146	acaggaaggc	cagacgcgaa	ttatttttga	tggcgttgga	att		7183

148 <210> SEQ ID NO: 2

149 <211> LENGTH: 6607

150 <212> TYPE: DNA

151 <213> ORGANISM: plasmid p15A

152 <400> SEQUENCE: 2

same error - Sequence 3 and 4 have same error

153	gaattaattc	tggcgaatcc	tctgaccagc	cagaaaaacga	cctttctgtg	gtgaaaccgg	60
154	atgctgcaat	tcagagcgcc	agcaagtggg	ggacagcaga	agacctgacc	gccgcagagt	120
155	ggatgtttga	catggtgaag	actatcgcac	catcagccag	aaaaccgaat	tttgctgggt	180
156	gggctaacga	tatccgcctg	atgctggaac	gtgacggacg	taaccaccgc	gacatgtgtg	240
157	tgctgttccg	ctgggcacgc	caggacaact	tctggtccgg	taacgtgctg	agcccgcca	300
158	agcttactcc	ccatccccct	gttgacaatt	aatcatcggc	tcgtataatg	tgtggaattg	360
159	tgagcggata	acaatttcac	acaggaaaca	ggatcctagg	agggttaaac	atatgcgata	420
160	tatagctggc	attgatatcg	gcaactcatc	gacggaagtc	gccctggcga	ccctggatga	480
161	ggctggcgcg	ctgacgatca	cccacagcgc	gctggcggaa	accaccggaa	tcaaaggcac	540
162	gttgcgtaac	gtgttcggga	ttcaggaggc	gctcgccctc	gtcgccagag	gcgcgggat	600
163	cgccgtcagc	gatatttcgc	tcatccgcat	caacgaagcg	acgcgggtga	ttggcgatgt	660
164	ggcgatggaa	accattaccg	aaaccatcat	caccgaatcg	accatgatcg	gccataaccc	720
165	gaaaacgccc	ggcggcgcg	ggcttggcac	aggcatcacc	attacgccgc	aggagctgct	780
166	aaccgcgccg	gcggacgcgc	cctatatcct	ggtgggtgct	tcggcggttc	attttgccga	840
167	tatcgccagc	gtgattaacg	cttccctgcg	cgccgggtat	cagattaccg	gcgtcatttt	900
168	acagcgcgac	gatggcgtgc	tggtcagcaa	ccggctggaa	aaaccgctgc	cgatcgttga	960
169	cgaagtgtcg	tacatcgacc	gcattccgct	ggggatgctg	gcggcgattg	aggtcgccgt	1020
170	tccggggaag	gtcatcgaaa	ccctctctaa	cccttacggc	atcgccaccg	tctttaacct	1080
171	cagccccgag	gagacgaaga	acatcgctcc	gatggcccgg	gcgctgattg	gcaaccgttc	1140
172	cgccgtgggt	gtcaaaacgc	catccggcga	cgtcaaagcg	cgcgcgatac	ccgcgggtaa	1200
173	tcttgagctg	ctggcccagg	gccgtagcgt	gcgcgtggat	gtggccgcgc	gcgcggaagc	1260
174	catcatgaaa	gcggctcgacg	gctgcggcag	gctcgataac	gtcaccggcg	aatccggcac	1320
175	caatatcggc	ggcatgctgg	aacacgtgcg	ccagaccatg	gccgagctga	ccaacaagcc	1380
176	gagcagcgaa	atatttatcc	aggacctgct	ggccgttgat	acctcggtac	cggtgagcgt	1440
177	taccggcggt	ctggccgggg	agttctcgct	ggagcaggcc	gtgggcacgc	cctcgatggg	1500
178	gaaatcggat	cgcctgcaga	tggcaatgat	cgcccgcgaa	atcgagcaga	agctcaatat	1560
179	cgacgtgcag	atcggcggcg	cagaggccga	agccgccatc	ctgggggcgc	tgaccacgcc	1620
180	gggcaccacc	cgaccgctgg	cgatcctcga	cctcggcgcg	ggctccaccg	atgcctccat	1680
181	catcaacccc	aaaggcgaca	tcacgcgccac	ccatctcgcc	ggcgaggcg	acatggtgac	1740
182	gatgattatt	gcccgcgagc	tggggctgga	agaccgctat	ctggcggaag	agatcaagaa	1800
183	gtaccgctg	gctaagggtg	aaagcctgtt	ccatttacgc	cacgaggacg	gcagcgtgca	1860
184	gttcttctcc	acgcgcgtgc	cgcccgccgt	gttcgcccgc	gtctgcgtgg	tgaaagcgga	1920
185	cgaactgggt	ccgctgccc	gcgatttagc	gctggaaaaa	gtgcgcgcca	ttcgccgcag	1980
186	cgccaaagag	cggttctttg	tcaccaacgc	cctgcgcgcg	ctgcgtcagg	tcagccccac	2040
187	cggaacatt	cgcgatattc	cgttcgtggg	gctggctggc	ggttcgtcgc	tggatttcga	2100
188	agtcgcgcag	ctggtcaccg	atgcgtggc	gcactaccgc	ctggttgccg	gacggggaaa	2160
189	tattcgcggc	agcgaggggc	cccgaacgc	ggtggccacc	ggcctgattc	tctcctggca	2220
190	taaggagttt	gcgcataaac	ggtaatcaca	gcgccccggc	catcgcgatc	gccgtcatcg	2280
191	acggctgcga	cggcctgtgg	cgcgaaagtgc	tgctgggtat	cgaagaggaa	ggtatccctt	2340
192	tccggctcca	gcataccccc	gccggagagg	tcgtggacag	cgccctggcag	gcggcgcgca	2400

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193	gctcgccgct	gctggtgggc	atcgccctgcg	accgccatat	gctggtcgtg	cactacaaga	2460
194	atttaccgcg	atcggcgcgc	ctttttacgc	tgatgcatca	tcaggacagt	caggcccatc	2520
195	gcaacaccgg	taataacgcg	gcacggctgg	tcaaggggat	ccctttccgg	gatctgaata	2580
196	gcgaagcaac	aggagaacag	caggatgaat	aagatctcgg	gtagcccgcg	taatgagcgg	2640
197	gctttttttt	atgagaatta	caacttatat	cgtatggggc	tgacttcagg	tgctacattt	2700
198	gaagagataa	attgcactga	aactctagaaa	tattttatct	gattaataag	atgatcttct	2760
199	tgagatcggt	ttggtctgcg	cgtaatctct	tgctctgaaa	acgaaaaaac	cgcttgcag	2820
200	ggcgggtttt	cgaaggttct	ctgagctacc	aactctttga	accgaggtaa	ctggcttggg	2880
201	ggagcgcgag	cacaaaaact	tgctctttca	gtttagcctt	aaccggcgca	tgacttcaag	2940
202	actaactcct	ctaaatcaat	taccagtggc	tgctgccagt	ggtgcttttg	catgtcttct	3000
203	cgggttggac	tcaagacgat	agttaccgga	taaggcgag	cggtcggact	gaacgggggg	3060
204	ttcgtgcata	cagtccagct	tgagcggaac	tgctaccgcg	gaactgagtg	tcaggcggtg	3120
205	aatgagacaa	acgcggccat	aacagcggaa	tgacaccggt	aaaccgaaa	gcaggaaacag	3180
206	gagagcgcac	gagggagccg	ccagggggaa	acgcctggta	tctttatagt	cctgtcgggt	3240
207	ttcgccacca	ctgatttgag	cgctcagatt	cgtgatgctt	gtcagggggg	cgagcctat	3300
208	ggaaaaacgg	ctttgcgcgc	gccctctcac	ttccctgtta	agtatcttcc	tggtatcttc	3360
209	caggaaatct	ccgcccgcgt	cgtaagccat	ttccgctcgc	cgcagtcgaa	cgaccgagcg	3420
210	tagcgagtca	gtgagcgagg	aagcgggaata	tatcctgtat	cacatattct	gctgacgcac	3480
211	cgggtgcagcc	ttttttctcc	tgccacatga	agcacttcac	tgacaccctc	atcagtgcc	3540
212	acatagtaag	ccagtataca	ctccgctagc	gctgatgtcc	ggcgggtgctt	ttgccgttac	3600
213	gcaccacccc	gtcagtagct	gaacaggagg	gacagctgat	agaaacagaa	gccactggag	3660
214	cacctcaaaa	acaccatcat	acactaaatc	agtaagttgg	cagcatcacc	cgacgcactt	3720
215	tgcgccgaat	aaatacctgt	gacggaagat	cactctgcag	aataaataaa	tccgtggtgc	3780
216	cctgttgata	ccgggaagcc	ctgggccaac	ttttggcgaa	aatgagacgt	cgtgcggcac	3840
217	gtaagagggt	ccaactttca	ccataatgaa	ataagatcac	taccgggcgt	attttttgag	3900
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223	ccttggtaca	ccgttttcca	tgagcaaaact	gaaacgtttt	catcgctctg	gagtgaaatac	4260
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225	aacctggcct	atttccttaa	agggtttatt	gagaatatgt	ttttcgtctc	agccaattccc	4380
226	tggttgagtt	tcaccagttt	tgattttaaac	gtggccaata	tggacaactt	cttcgcccc	4440
227	gttttcacca	tgggcaataa	ttatacgcaa	ggcgacaagg	tgctgatgcc	gctggcgatt	4500
228	caggttcatc	atgccgtctg	tgatggcttc	catgtcggca	gaatgcttaa	tgaattacaa	4560
229	cagtactgcg	atgagtggca	gggcggggcg	taattttttt	aaggcagtta	ttggtgccct	4620
230	taaacgcctg	gtgctacgcc	tgaataagtg	ataataagcg	gatgaatggc	agaaattcga	4680
231	aagcaaatcc	gacccggtcg	tccgttcagg	gcagggtcgt	taaatagccg	cttatgtcta	4740
232	ttgctggttt	accggtttat	tgactaccgg	aagcagtggt	accgtgtgct	tctcaaatgc	4800
233	ctgaggccag	tttgctcagg	ctctccccgt	ggaggttaata	attgacgata	tgatcattta	4860
234	ttctgcctcc	caaagcaatt	ccgacacact	cgaattggtc	aaaaccttcc	gcggtatggc	4920
235	atgatagcgc	ccggaagaga	gtcaattcag	ggtggtgaat	gtgaaaccag	taacgttata	4980
236	cgatgtcgca	gagtatgccg	gtgtctctta	tcagaccgtt	tcccgcgtgg	tgaaccaggc	5040
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239	cacctccagt	ctggccctgc	acgcgcgcgc	gcaaatgtgc	gcggcgatta	aatctcgcgc	5220
240	cgatcaactg	ggtgccagcg	tggtggtgtc	gatggtagaa	cgaagcggcg	tcgaagcctg	5280
241	taaagcggcg	gtgcacaatc	ttctcgcgca	acgcgtcagt	gggctgatca	ttactatccc	5340

VERIFICATION SUMMARY

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Input Set : N:\Crf4\01162007\J573728A.raw

Output Set: N:\CRF4\01182007\J573718A.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number